

**METHOD, SYSTEM AND APPARATUS FOR CONTROLLED IMPEDANCE AT
TRANSITIONAL PLATED-THROUGH HOLE VIA SITES USING BARREL
INDUCTANCE MINIMIZATION**

ABSTRACT OF THE DISCLOSURE

5 A system, apparatus and method for controlled
impedance at transitional via sites using barrel
inductance minimization are provided. In one embodiment,
one or more sidewalls of a via barrel are preferably
processed such that conductive material disposed thereon
10 is selectively removed thereby forming an inner-via trace
connecting one or more conductive traces and/or pads on a
first substrate layer to one or more conductive traces
and/or pads on a second substrate layer. Removal of
conductive material from a sidewall of the via barrel is
15 done in a manner such that an inner-via trace traveling
from a first surface to a second surface of one or more
substrate layers possesses at least one electrical
characteristic substantially approximating a
corresponding electrical characteristic of those
20 structures to which the inner-via trace is connected.